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UPDATE OF THE INITIAL INSTALLATION ASSESSMENT OF ROCK ISLAND ARSENAL, IL

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Prepared for:

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Rock Island Arsenal
Rock Island, IL 61299-6000
and
U.S. ARMY TOXIC AND HAZARDOUS MATERIALS AGENCY
Aberdeen Proving Ground, MD 21010-5401

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j	changes, coupled with the interim changes in environmental regulations or mission, had						
-	altered the contaminant migration situation and would change the previous recommendation to						
,	not conduct a site investigation (SI). Information obtained during the onsite visit was used						
	to update the IIA Report. It was concluded that the possibility for contaminant migration						
-	exists in the shallow ground wa	ter at the old .	landfill and	quarry. I	t was also	concluded	
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SUMMARY

An onsite installation assessment was conducted at Rock Island Arsenal (RIA), Rock Island, IL, on 2 and 3 February 1987 to determine if any environmental/hazardous waste disposal conditions had changed since the Initial Installation Assessment (IIA) and if such changes, coupled with interim changes in environmental regulations or missions, had altered the contaminant migration/hazard situation and would change the previous non-site investigation (SI) recommendation. Data obtained during the onsite assessment were used to update the IIA performed in 1979.

It was concluded that:

- Available information on contaminant sources and the geohydrology of the installation indicates the potential for contamination of the shallow ground water and subsequent migration;
- 2. Due to the location of existing monitor wells, contaminants that may potentially migrate from the former liquid disposal pits at the old landfill may not be detected in the ground water;
- The soils around Bldg. 144 may be contaminated with petroleum,
 oils, and lubricants (POL) from leaking underground tanks;
- 4. Stormwater drainage outfalls require National Pollutant Discharge Elimination System (NPDES) permits;
- 5. Ground water monitor wells at the new filling station (Bldg. 244) have not been tested to determine if the storage tanks are leaking; and
- 6. Munitions compounds may be present in the old quarry.

Based on these conclusions, the following items were recommended. That U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) should:

1. Not conduct an SI at RIA.

That RIA should:

- 2. Consider installation of additional monitoring wells at the old landfill, old quarry, and initiation of the ground water monitoring program recommended by the U.S. Army Environmental Hygiene Agency (USAEHA); the analysis program should include all priority pollutants and munitions compounds manufactured at the installation in the past;
- 3. Ensure that the contractor removes all POL-contaminated soils at Bldg. 144, along with the abandoned tanks and their contents;
- 4. Continue with plans to submit an NPDES permit application for the stormwater outfalls; and
- 5. Consider continuous monitoring of the wells at Bldg. 244 with hydrocarbon detectors.

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LIST OF ACRONYMS AND ABBREVIATIONS

A&E Architect and Engineering

ARRADCOM U.S. Army Armament Research and Development Command

CE U.S. Army Corps of Engineers

CSL Chemical System Laboratory

DARCOM U.S. Army Materiel Development and Readiness Command

[now U.S. Army Materiel Command (AMC)]

DRMO Defense Reutilization and Marketing Office

EPA U.S. Environmental Protection Agency

EPIC Environmental Photographic Interpretation Center

ESE Environmental Science and Engineering, Inc.

FY fiscal year

gal gallon

ha hectare

IEPA Illinois Environmental Protection Agency

IIA Initial Installation Assessment

IWTP Industrial Wastewater Treatment Plant

L liter m meter

mg/L milligrams per liter

MOGAS motor gasoline

NIPDWR National Interim Primary Drinking Water Regulations

NPDES National Pollutant Discharge Elimination System

NSDWR National Secondary Drinking Water Regulations

PCB polychlorinated biphenyl

POL petroleum, oils, and lubricants

ppm parts per million
RIA Rock Island Arsenal
SI Site Investigation

USAEHA U.S. Army Environmental Hygiene Agency

USATHAMA U.S. Army Toxic and Hazardous Materials Agency

WWII World War II

1.0 GENERAL

1.1 PURPOSE OF THE EVALUATION

An onsite records search [Initial Installation Assessment (IIA)] was conducted at Rock Island Arsenal (RIA), Rock Island, IL, in 1979 to assess past and current use of toxic and hazardous materials, as well as the potential for these substances to migrate off the installations.

An evaluation of the records search (IIA) report for RIA was conducted in February 1987 to determine if previous non-survey [site investigation (SI)] conditions had changed and if such changes, coupled with interim changes in environmental regulations or mission, had altered the contaminant migration/hazard situation.

All information concerning operations existing at the time of the original assessment was reviewed and incorporated into this report, along with new information made available to the team upon assignment of the update and by the installation at the time of the revisit.

1.2 AUTHORITY

U.S. Army Materiel Development and Readiness Command (DARCOM) Regulation 10-30, Mission and Major Functions of USATHAMA, 13 July 1984.

1.3 INTRODUCTION

- In reviewing earlier published records search (IIA) reports (1976 to 1981), the USATHAMA Installation Restoration Division determined some installations would require additional evaluations due to changes in environmental laws, changes in mission, and environmental problems discovered after the onsite visit.
- 2. Subsequent to the IIA in December 1979, USATHAMA has determined a report update would be required for RIA.



- 3. Rock Island Arsenal was contacted to outline the scope of the evaluation, provide guidelines to RIA personnel, and obtain advance information for review by the evaluation team.
- 4. Installation personnel were briefed on the evaluation program on 2 February 1987 by Julius W. Hunter from Environmental Science and Engineering, Inc. (ESE), a USATHAMA contractor.
- 5. Various Government agencies were contacted for documents pertinent to the evaluation effort. Agencies contacted include:
 - a. U.S. Army Environmental Hygiene Agency (USAEHA) (Aberdeen Proving Ground, MD); and
 - b. U.S. Environmental Protection Agency (EPA), Environmental Photographic Interpretation Center (EPIC) (Vint Hill Farms Station, Warrenton, VA).
- 6. The onsite phase of the evaluation was conducted on 2 and 3 February 1987. The information presented in this report is current, as of the date of the evaluation. The following personnel from ESE, under Contract No. DAAA15-85-D-0017, Delivery Order No. 0007, were assigned to the evaluation team:
 - o Dr. J.D. Bonds, Project Manager;
 - o J.W. Hunter, Team Leader;
 - o Ms. Janet Sherwood, Document Coordinator; and
 - o Ms. Kathleen Civitarese, Librarian.
- 7. In addition to the records review, several RIA employees were contacted to obtain information on various sites (see App. A).

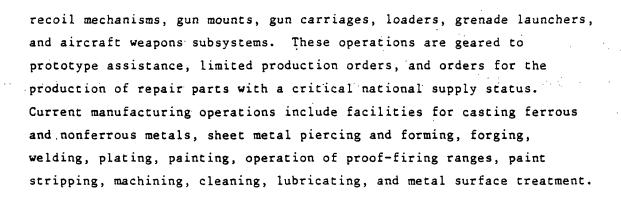
 A ground tour of RIA was made, and photographs were taken.
- 8. The installation update focused primarily on those areas identified as potential problems in the original assessment and environmental studies performed subsequent to the original site visit.



Rock Island Arsenal is located on an island in the Mississippi River between Iowa and Illinois (Fig. 1-1). Upon recommendation of the Secretary of War, Rock Island was approved by Congress on 11 July 1962 as a location for a western armory. The 384 hectares (ha) of Rock Island are divided as follows: Rock Island Arsenal, 367 ha; U.S. Army Corps of Engineers (CE), 4 ha; National Cemetery, 11 ha; and the Confederate Cemetery, 1 ha. The 367 ha under the control of RIA are divided into three management land uses: improved land, 80 ha; semi-improved land, 61 ha; and the remaining unimproved land encompasses 226 ha which also includes 68 ha outleased for a golf course.

Missions of the Arsenal have included the manufacture of small arms during the Spanish-American War and again from 1899 to 1917. Between 1918 and 1941, RIA was utilized as a storage and repair facility for ordnance materiel. During this period, RIA specialized in tank and armored vehicle development. During World War II (WWII), the design and manufacture of ordnance materiel increased tremendously. Rock Island Arsenal assembled heavy guns; made heavy gun carriages; manufactured small arms, gun mounts, and recoil mechanisms; and performed tank repair and modification. Since WWII, depot and manufacturing operations have declined, except for limited periods during the Korean and Vietnam Conflicts.

Industrial operations at RIA date back to the Spanish-American War. Early operations conducted at RIA included forging, smithing, tinning, production of gun carriages and powder cases, the manufacture and repair of small arms, operation of harness shops, and loading of ammunition. Later operations included the manufacture of automotive vehicles, demolition bombs and bomb racks, modification of aircraft engines, light tanks, recoil mechanisms, machine guns, rocket launchers, breech mechanisms, and Honest John and Nike Hercules launchers. More recent operations have included production of small arms, artillery components,



The current mission of RIA is to perform manufacturing of assigned materiel and its required direct support to include engineering and product assurance. Assigned materiel includes aircraft weapons, infantry weapons, air defense weapons, gun mounts, recoil mechanisms and carriages for tanks and artillery, armaments for tanks, special tools, tool sets and common tools, and maintenance equipment. Prototype and advanced engineering models are manufactured in support of U.S. Army Armament Research and Development Command (ARRADCOM). Rock Island Arsenal provides the Armed Forces with manufacturing and support services not readily available from private industry.

The current RIA mission has not changed since the 1979 IIA.

The number of personnel at RIA and the level of activity also remain approximately the same as during the 1979 IIA.

2.0 CONCLUSIONS, RECOMMENDATIONS, AND CORRECTIVE ACTIONS RESULTING FROM THE 1979 INSTALLATION ASSESSMENT OF ROCK ISLAND ARSENAL

2.1 CONCLUSIONS (AS STATED IN THE IIA PUBLISHED BY USATHAMA IN 1979)

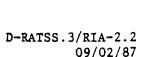
- 1. The primary contaminants from the industrial operations are heavy metals; cyanide salts; petroleum, oils, and lubricants (POL); and organic solvents.
- 2. The most heavily contaminated onpost sites are presumed to be the old landfill south of Bldg. 299, the "XYZ" Area, and the industrial fill area located northwest of Bldg. 299.
- 3. The most likely routes for offpost migration of contaminants are via surface runoff and shallow underground water flow into the Mississippi River.
- 4. Both the USAEHA analysis of the wells at RIA and the CE water pollution study of the landfill area indicate that contaminants are not migrating to the initial aquifer below bedrock or to the shallow ground water.
- 5. There is no provision for the containment of accidental leakage from the drums of Industrial Wastewater Treatment Plant (IWTP) sludge and cyanide salts stored in Bldg. 175.

2.2 RECOMMENDATIONS (AS STATED IN THE IIA PUBLISHED BY USATHAMA IN 1979)

- 1. That no preliminary survey be conducted at this time.
- 2. That a berm or similar means be built around the drums of chemical waste stored in Bldg. 175 to contain any accidental spillage or drum leakage.

2.3 CORRECTIVE ACTION TAKEN SINCE THE INITIAL INSTALLATION ASSESSMENT

2.3.1 HAZARDOUS WASTE STORAGE FACILITIES BLDGS. 175 AND 242
The 1979 IIA indicated that Bldg. 175 did not have any means of
containing potential spills. This building was used to house drums of
filter cake, cyanide salts, and other hazardous waste awaiting disposal



by a contractor. Due to the potential for spills of hazardous materials in this area and the potential for migrating into the outside environment, the IIA recommended the addition of some means to contain spills. A curb of angle iron was installed and floor cracks were sealed with epoxy resin as recommended. Subsequently, in 1982, the hazardous waste was moved to Bldg. 242, the current storage facility, and Bldg. 175 was demolished. A recent contamination survey (USAEHA, 1985a) also recommended that the floors of Bldg. 242 be sealed. Since the IIA and the 1985 USAEHA survey, the floor of Bldg. 242 has been sealed with an epoxy sealer to prevent any spilled materials from leaching through or adhering to the concrete floor.

2.3.2 OLD LANDFILL

A landfill located south of Bldg. 299 and immediately adjacent to Sylvan Slough (Fig. 2-1) was used for the disposal of industrial waste from 1920 until the mid-1960s. The wastes disposed of in the landfill included construction rubble and debris, oily sludges, waste oil, anti-freeze, water coolant, waste cyanide salts, sludges from the plating shops, lead and zinc chromates, and paint residues. The liquids were poured into pits (Fig. 2-1) and either burned or allowed to percolate into the ground. The entire landfill contents were burned on an irregular basis. Five monitor wells were installed by an architect and engineering (A&E) firm on the southern perimeter of the landfill in 1978 (designated old monitor wells 1-5 on Fig. 2-1). Two additional monitor wells were installed north of the old landfill in 1986.

The materials removed from the wells during drilling were analyzed by an extraction procedure recommended by the Illinois Environmental Protection Agency (IEPA). The results indicated that the soil samples contained oil (see Table 2-1) and, in one case, an excessive amount of iron. However, the water samples did not have any parameters which exceeded the National Interim Primary Drinking Water Regulations (NIPDWR) and National Secondary Drinking Water Regulations (NSDWR) standards (see Table 2-2). The study also determined that: (1) the water table was 3 to 4 meters

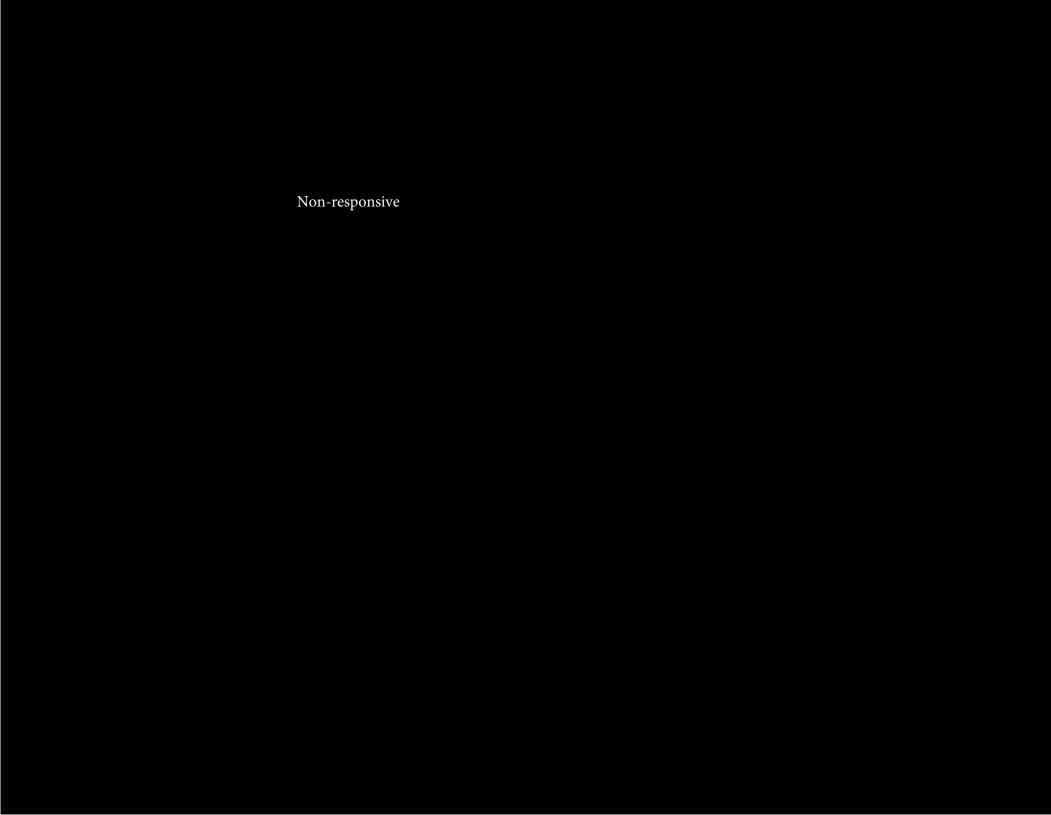


Table 2-1. Results of Water Quality Analysis of the Soluble Portion Obtained From a Leachate Test of Soils From Three Test Holes at the Old Sanitary Landfill on Rock Island Arsenal

Test Hole Test Hole IEPA No. I No. 2 No. 3 Water (9' to 15' to (20' to Quality Parameter 10'6") 16'6") 21'6") Standard			ocation and Re units in ppm e		
oil 250 140 430 (15)† phenol <0.01 0.02 <0.01 0.1 mercury <0.005* <0.005* <0.005* 0.0005* zinc 0.56 0.40 0.90 1.0 cyanide <0.05 <0.05 <0.05 0.025 chromium (Cr+3) <0.05 <0.05 <0.05 1.0 chromium (Cr+6) <0.05 <0.05 <0.05 <0.05		Test Hole No. 1 (9' to	Test Hole No. 2 15' to	Test Hole No. 3 (20' to	
phenol <0.01	рН	7.01	8.62	7.97	6.5 - 9.0
mercury <0.005* <0.005* <0.005* zinc 0.56 0.40 0.90 1.0 cyanide <0.05	oil	250	140	430	(15)†
zinc 0.56 0.40 0.90 1.0 cyanide <0.05	phenol	<0.01	0.02	<0.01	0.1
cyanide <0.05	mercury	<0.005*	<0.005*	<0.005*	0.0005
chromium (Cr+3) <0.05 <0.05 <0.05 1.0 chromium (Cr+6) <0.05 <0.05 <0.05 0.05	zinc	0.56	0.40	0.90	1.0
chromium (Cr+6) <0.05 <0.05 <0.05	cyanide	<0.05	<0.05	<0.05	0.025
	chromium (Cr+3)	<0.05	<0.05	<0.05	1.0
nickel 0.5 0.3 0.1 1.0	chromium (Cr+6)	<0.05	<0.05	<0.05	0.05
	nickel	0.5	0.3	0.1	1.0
copper <0.01 0.01 0.02	copper	<0.01	0.01	<0.01	0.02
iron 0.3 0.3 4.5 1.0	iron	0.3	0.3	4.5	1.0
cadmium 0.04 0.002 0.01 0.05	cadmium	0.04	0.002	0.01	0.05

^{*}Due to IEPA procedure of diluting samples by a factor of 10, these data cannot be measured to the level of significance required.

†IEPA effluent standard.

Note: ppm = parts per million

Source: IIA, 1979.

Table 2-2. Results of Water Quality Analysis of Three Monitor Wells at the Old Sanitary Landfill on Rock Island Arsenal

	Location and Results (all units in mg/L except pH)			IEPA Water
D	Test Well	Test Well	Test Well	Quality
Parameter	No. 1	No. 2	No. 3	Standards
рH	7.17	7.42	6.83	6.5 - 9.0
oil	3:7	2.8	3.5	(15)*
mercury	<0.005	<0.005	<0.005	0.0005
zinc	0.012	0.002	0.005	1.0
cyanide	<0.001	<0.001	<0.001	0.025
chromium (Cr+3)	<0.005	<0.005	<0.005	1.0
chromium (Cr+6)	<0.005	<0.005	<0.005	0.05
nickel	<0.01	<0.01	<0.01	1.0
copper	0.015	0.007	0.001	0.02
iron	. 0.21	0.38	0.35	1.0
cadmium	<0.001	<0.001 -	<0.001	0.05

^{*}IEPA effluent standard.

Note: mg/L = milligrams per liter.

Source: IIA, 1979.

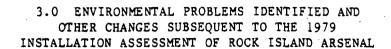


(m) below ground surface; (2) the shallow ground water moved in a southerly direction, and (3) the water table fluctuated with the rise and fall of the river. Based on these results and the assumption that the landfill had been heavily leached since closure, the report indicated the probability of significant movement of any additional oil or heavy metals from the landfill to the ground water would be considered extremely small. Four of the five wells were still in-place and were located during the recent onsite visit.

A contamination study (USAEHA, 1985b) conducted at the RIA landfill indicated that additional monitor wells and monitoring would be required because the original monitor wells are all located within the landfill boundaries and no background wells are available. The report also recommended that RIA collect and analyze ground water samples for arsenic; cadmium; barium; chloride; hexavalent chromium; copper; cyanide; iron; lead; manganese; mercury; nickel; selenium; silver; sulfate; zinc; total dissolved solids; specific conductance; total organic carbon; total organic halogen; oil; endrin; lindane; methoxychlor; toxaphene, 2,4-dichlorophenoxyacetic acid; 2,4,5-trichlorophenoxyacetic acid; pesticide scan; polychlorinated biphenyl (PCB); volatile organic scan; base neutral extractables; and acid extractables.

As a result of the USAEHA report, two new monitor wells were installed by CE on RIA in May 1986. These wells, located upgradient of the landfill, are also shown on Fig. 2-1. The monitor wells have not been sampled since they were installed. Well logs for these two wells (3A and 4A) are presented in App. B.

A clay cover has also been placed by CE over a limited area of the old landfill, as shown in Fig. 2-1. The actual thickness and permeability of the clay cover is not known. This landfill cover was added to adequately cover landfill cells opened by erosion and settling. The addition of the cover also prevents the infiltration of rainwater which would increase the potential of leaching contaminants into the ground water.



3.1 ENVIRONMENTAL PROBLEMS

No significant new environmental problems with respect to the past or current generation, storage, or disposal of hazardous materials have been identified at RIA as a result of this study.

3.2 OTHER CHANGES

3.2.1 PESTICIDES

At the time of the IIA, all pesticide activities were handled by the RIA Entomology Department. The installation had constructed a new pesticide facility (Bldg. 139) and was in conformance with both Army and Federal guidelines for the handling, storage, and usage of pesticides.

Pesticides currently used at RIA are stored in Bldg. 139. The pesticide program is currently administered through the Roads and Grounds section. All personnel involved with the application of pesticides at RIA between 1975 and January 1987 were Army trained and certified.

Beginning on 25 January 1987, the mixing and application of pesticides was transferred to an outside contractor. The installation continues to store the pesticides to be used by the contractor on the Arsenal in Bldg. 139. The contractor also will continue to mix batches of pesticides at Bldg. 139. This building is in compliance with Federal and Army guidelines for pesticide facilities.

3.2.2 POLYCHLORINATED BIPHENYLS (PCBs)

At the time of the IIA, RIA had not performed any surveys of electrical equipment (transformers, capacitors, etc.) on the installation to determine if PCBs were present as contaminants in the dielectric fluids.



Subsequent to the IIA, the installation identified and labeled all PCB-containing items on the installation.

Since completion of the 1979 IIA, a list of PCB-containing transformers has been prepared by RIA and is presented in App. B. As PCB transformers are removed from use, they are transferred to the Hazardous Waste Storage facility in Bldg. 242. The transformers are disposed of offpost through the Defense Reutilization and Marketing Office (DRMO). The out-of-service transformer storage area complies with Federal regulations.

3.2.3 PETROLEUM, OILS, AND LUBRICANTS (POLs)

Petroleum, oils, and lubricants (POLs) are stored in a variety of areas on RIA. Most of the RIA shops use solvents, lubricating oils, or cutting oils as part of the manufacturing process or in maintenance activities. The heavy equipment and vehicle maintenance shops store POLs for use in vehicle maintenance. Waste oil is collected at the point of generation and taken to a series of concrete underground storage tanks at Bldg. 216. These rectangular tanks have a capacity of approximately 15,000 gallons The tanks were installed in 1917. The tanks have not been leak checked; however, upon filling, the quantity of waste oil in the tank is estimated using a calibrated gaging stick. The tank cover is always secured with a lock. When the tank is near capacity, DRMO is notified to begin sale of the waste oil. Once the oil has been removed by the contractor, the actual amount sold is compared with the original estimate. The RIA Environmental Coordinator reports that no significant discrepancies have occurred. These tanks are scheduled to be removed during fiscal year (FY) 88. The installation will examine the soils around the tank at the time of removal to determine if any leaks have occurred.

Bulk fuels are stored in several locations on RIA. The underground storage tanks are discussed in subsequent paragraphs. Six 10,000-gal aboveground steel tanks, located in the basement of Bldg. 155, were used for approximately 45 years to store both diesel fuel and kerosene. Four of the tanks were abandoned (in the early 1980s) when it was discovered that they were leaking. The four abandoned tanks and the two in-use tanks were removed then and the building was razed in mid-1986.

Appendix C contains the IEPA notification form for the underground storage tanks located on RIA. The installation reported 27 underground tanks to IEPA. The locations of these tanks are shown in Fig. 3-1. The installation has instituted a program to remove some of the tanks and replace them with aboveground tanks, where necessary.

Four new fiberglass single-wall tanks were recently installed at Bldg. 244. Building 244 is a new vehicle filling station and had not yet been placed into service at the time of the onsite visit. The new tanks are above ground level but are earth mounded. Two monitor wells (see App. B for the drilling logs for Wells 1A and 2A) were installed in September 1986 near the tanks. These wells will be sampled at a future date to assure RIA that the tanks are not leaking.

During late 1986, RIA selected a contractor to remove four underground tanks located at Bldg. 144. Upon excavation, it was discovered that 10 tanks [approximately 45,000-liter (L) capacity for each tank] were actually at that location and that several of the tanks still contained POL [motor gasoline (MOGAS)]. The excavation contractor removed several of the tanks, including the POL, until the limit of the contract was reached. Rock Island Arsenal is proceeding with modifying the contract to extend the period of performance and increase the funding available for removing the POL remaining in the tanks, along with the tanks. The excavation was still open during the recent onsite visit, and an oil sheen was observed on the water contained in the hole. The tanks formerly had been used to store solvents and fuels for use in the

neighboring shops: A filling station (Bldg. 143) formerly was located at this area, but was demolished prior to the 1979 IIA.

Two underground storage tanks are located at Bldg. 158, the equipment filling station. The tanks are scheduled for removal during FY88. Any fuels removed from these tanks will be taken to the filling station at Bldg. 244.

3.2.4 OLD QUARRY

An abandoned rock quarry is located on the eastern end of RIA, as shown in Fig 3-2. The quarry was used, prior to 1862, to mine rock for use in construction activities in the surrounding communities. The quarry has been used for disposal of all types of materials during the existence of RIA. It is reported, but not confirmed, that munitions, cannon, and scrap metal may have been disposed of in the quarry. The depth of the quarry is unknown. The quarry is currently being backfilled with clean fill material and dirt. No adverse environmental effects were noted during the onsite visit.

3.2.5 STORMWATER DISCHARGE

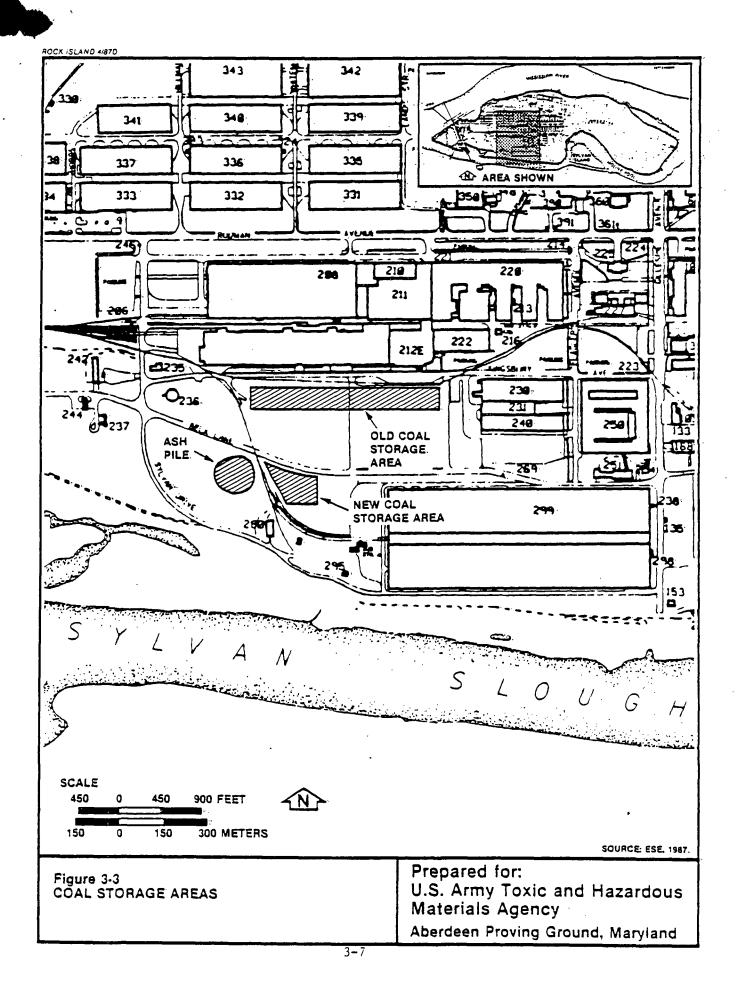
The IEPA has requested that RIA file a National Pollutant Discharge Elimination System (NPDES) Permit application for the stormwater discharge system. Storm water is currently collected and discharged into the Mississippi River and Sylvan Slough at various points on the island. The RIA Environmental Coordinator reports that the application will be filed during FY87.

3.2.6 COAL PILE

Prior to 1984, and during the time when the 1979 IIA was conducted, bulk coal for use in the central heating plant was stored outside at the location shown in Fig. 3-3. This location did not have stormwater runoff controls or curbing.

Aberdeen Proving Ground, Maryland

DAVENPORT



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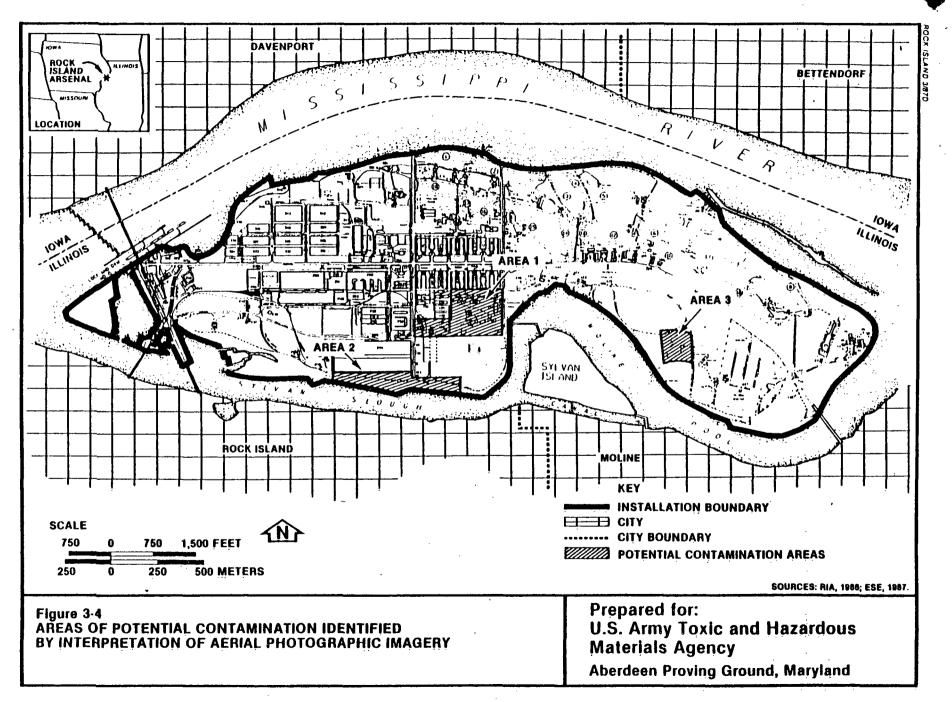
In 1984, the coal pile was moved south to the area shown on Fig. 3-3. This area was graded to bedrock and a sump was installed to provide runoff control. All runoff is collected in the limestone-filled sump. The limestone in the sump neutralizes any acidic runoff from the coal pile. Coal fines also settle-out in the sump. The coal fines are periodically removed and combusted in the installation boilers. Effluent from the sump is discharged to a wooded area south of the storage area. The discharge is permitted by IEPA; however, no effluent monitoring is required.

Bottom ash generated by the boilers is also stored adjacent to the coal pile. The location of the ash storage is also shown in Fig. 3-3. Runoff from the ash pile also is collected in the sump.

3.3 AREAS IDENTIFIED FROM AERIAL PHOTOGRAPHIC IMAGERY

The United States Environmental Protection Agency's Environmental Photographic Interpretation Center, under an interagency agreement with USATHAMA, prepared a report in which potential contamination areas on RIA were identified. These areas (Fig. 3-4) were identified based on ground staining, ground scarring, open trenches, aboveground tanks, open storage areas, mounded materials, vehicle and equipment storage, pits, standing liquid, drums, possible berms, and other signatures which are readily recognizable to photographic imagery experts.

The areas identified from aerial photographic imagery are described in Table 3-1. The study proved very useful in confirming the existing areal extent of various potential contamination areas identified in the 1979 IIA.



04/06/87

Table 3-1. Description of Potential Contamination Areas Identified from Photographic Imagery

EPIC Area Number	EPIC Description of Area	Assessment of Area
1	Property Disposal Area	Area used for storage of excess material for disposal through DRMO. Area in use since prior to 1951. Materials stored in bins, drums, and bulk piles. The 1987 onsite visit did not indicate any change in status since the 1979 IIA. No hazardous materials are disposed of at this area.
	Landfill	Landfill was used from 1920 to 1965. Materials disposed of include: oily sludges, waste cyanide salts, paint, lead and zinc chromates, building rubble, and wood debris. EPIC and the 1987 onsite visit indicate that the entire landfill area was not identified in the 1979 IIA. The old landfill was described in Sec. 2.3.2 of this current report.
3	Old Quarry	Quarry was used to mine rock prior to 1862. EPIC reports that the quarry was expanded from 1950 to 1970. RIA personnel deny any expansion activity during this period. The 1987 onsite visit indicates that the quarry is being backfilled with clean fill. RIA personnel report that the quarry has been used for limited waste disposal in the past.

Sources: EPIC, 1980.

4.0 1987 EVALUATION OF ROCK ISLAND ARSENAL

4.1 FINDINGS

4.1.1 INDUSTRIAL WASTEWATER TREATMENT PLANT

The 1979 IIA indicated that potentially hazardous sludges, filter cake, and cyanide salts were stored in Bldg. 175. The IIA also indicated that the potential for spills and subsequent migration of hazardous materials existed because the storage areas were not bermed. It was recommended that RIA provide berms or other means to contain potential spills.

Since the IIA, RIA has sealed the floors of Bldg. 175 with epoxy paint, thereby providing a barrier to prevent any spilled materials from leaching through or permeating the concrete. In addition, RIA has installed curbing around the doorways to prevent any spilled materials from migrating to areas outside the building.

4.1.2 OLD LANDFILL

A landfill on the south side of RIA, adjacent to Sylvan Slough, was used from 1920 to 1965 for the disposal of industrial waste. The landfill was identified, prior to the 1979 IIA, as an area where migration could potentially occur. Five monitor wells were installed at the landfill, and a ground water contamination survey was conducted in July 1985 by USAEHA. The USAEHA studies recommended the installation of additional monitor wells and the initiation of a ground water monitoring program. Two additional upgradient monitor wells were installed in early 1986. Ground water from these wells has not yet been collected or analyzed for contamination.

As a result of the onsite assessment, it was determined that the landfill is larger than originally outlined in the 1979 IIA. EPIC photographs dating 1931 and 1958 show that the actual landfill boundaries extend

09/02/87

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farther east and west than previously identified. The area covered by the clay cover (Fig. 2-1) includes only the old landfill boundaries as outlined in the 1979 IIA.

The actual boundaries identified by EPIC photographic imagery are indicated as the entire landfill area in Fig. 2-1. The aerial photographs show areas east of the old boundary that were used for waste oil and liquid disposal. Several pits containing standing liquid were observed in the aerial photographs. This method of disposal is consistent with the practices described in the IIA.

The ground water study conducted in 1979 did not indicate contamination of the water column (no exceedences of NIPDWR or NSDWR standards). The study indicated the presence of POL in the soil from the borings at the area. The new wells emplaced upgradient of the landfill in 1986 had not been sampled and analyzed at the time of the onsite visit. Because the landfill is more extensive than originally described in the 1979 IIA, the possibility exists that all areas of the landfill where contaminants may migrate toward the river do not have downgradient monitor wells.

4.1.3 PESTICIDES

Since the IIA, RIA has decided to contract pesticide handling, mixing, and spraying on the installation. Pesticides storage will continue in Bldg. 139; and the contractor will be responsible for mixing, disposal of cans, and application of pesticides. The pesticide storage and mixing building on RIA conforms with Federal and Army guidelines for pesticide facilities. No problems with respect to contaminant migration are anticipated at RIA.

4.1.4 POLYCHLORINATED BIPHENYLS

At the time of the 1979 IIA, RIA had not conducted an inventory to. determine if PCB-contaminated, PCB-containing, or PCB-filled transformers or other PCB items existed on the installation. Since the IIA, the

installation has performed the inventory and identified the locations of all transformers. Out-of-service transformers of RIA are transferred to Bldg. 242, an area which complies with Federal regulations for the storage of PCB items, while awaiting disposal. The installation notifies DRMO when out-of-service transformers are transferred to Bldg. 242, and DRMO then arranges a disposal contract with a licensed hazardous waste disposal company.

4.1.5 PETROLEUM, OILS, AND LUBRICANTS

Petroleum, oils, and lubricants are stored in aboveground and underground tanks at various locations on RIA.

Waste POL is collected at the point of generation (manufacturing and maintenance shops) and stored in underground tanks located at Bldg. 216. The tanks are checked on a periodic basis with a gauge stick to determine if any measurable leakage is occurring. When the tanks are nearly full, DRMO sells the waste POL to contractors. No leaks have been detected at this area.

Six aboveground 10,000-gal, POL-containing tanks were formerly located in Bldg. 155. Four of the tanks were abandoned, and all POL was removed, when leaks were discovered. All of the tanks and Bldg. 155, including concrete floors, were removed and disposed of in 1986.

Four new fiberglass tanks have recently been installed at the new filling station (Bldg. 244). These tanks are physically above the normal land surface, but have an earthen cover for added safety. Two monitor wells have been installed adjacent to the tanks; however, no samples of ground water have been collected and analyzed.

In 1986, RIA contracted for the removel of four underground tanks at Bldg. 144. After initiation of the excavation, it was discovered that 10 tanks, including some filled with POL, were located at this area.

During excavation some POL-contaminated soil and a POL sheen on the water contained in the tank excavation area were detected.

4.1.6 OLD QUARRY

An abandoned rock quarry exists on the eastern end of RIA. Prior to 1862, the quarry was used to obtain building construction materials for use in the local area. During the lifetime of RIA, the quarry has been used for the disposal of items including building rubble, clean fill, possible munitions, scrap metal, and cannon. The depth of the quarry is unknown. Since the IIA, RIA has made an effort to backfill the quarry with all clean fill and dirt which becomes available on the installation.

4.1.7 STORMWATER DISCHARGE

Stormwater at RIA is collected and discharged into the Mississippi River and Sylvan Slough at various points on the island. The IEPA has requested that the Arsenal comply with Federal and State regulations which require that stormwater discharge points be assigned an NPDES permit and be monitored on a regular basis. The RIA Environmental Coordinator indicates the application is being prepared and will be submitted during 1987.

4.1.8 COAL PILE

Since the 1979 IIA, RIA has created a new area for storing coal. The area was prepared by grading to bedrock and installing a collection sump to intercept surface water runoff. The sump was also filled with limerock to neutralize any acidic runoff from the coal pile. In addition, the sump collects coal particulate fines. The particulate fines are periodically removed from the sump and burned in the installation boiler. Effluent from the sump is discharged to a wooded area south of the storage area. No monitoring of the effluent is required by IEPA.

4.2 CONCLUSIONS

- Available information on contaminant sources and the geohydrology of the installation indicates the potential for contamination of the shallow ground water and subsequent migration.
- Due to the locations of the existing monitor wells, contaminants which may potentially migrate from the former liquid disposal pits at the old landfill may not be detected in the ground water.
- 3. The soils at Bldg. 144 may be contaminated with POL from the leaking underground tanks.
- 4. Stormwater drainage outfalls at RIA require NPDES permits.
- 5. Ground water monitor wells at the new filling station (Bldg. 244) have not been tested to determine if the storage tanks are leaking.
- 6. Munitions compounds may be present in the old quarry.

4.3 RECOMMENDATIONS (Keyed to Conclusions)

That USATHAMA should:

1. Not conduct an SI at RIA.

That RIA should:

- 2. Consider installation of additional monitor wells at the old landfill, the old quarry, and initiation of the ground water monitoring program recommended by USAEHA. The analysis program should include all priority pollutants and munitions compounds suspected to be present due to past manufacturing activities.
- 3. Ensure that the contractor removes all POL-contaminated soils at Bldg. 144, along with the abandoned tanks and their contents;
- 4. Continue with plans to submit NPDES permit applications for the stormwater outfalls; and
- 5. Consider continuous monitoring of the wells at Bldg. 244 with hydrocarbon detectors.

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APPENDIX A

RIA PERSONNEL CONTACTED

PERSONNEL INTERVIEWED

Name

Dr. William S. Shore-

Ms. Karen Beachler

Mr. Walter Kisner

Mr. Ralph Martens

Mr. Jerry Wickersham

Title

Environmental Coordinator

Industrial Environmentalist

Director, Science and Engineering

Directorate

Engineering and Housing Directorate,

Engineering Division

NCRED-G, Civil Engineering Technician

APPENDIX B

DRILLING LOGS FOR MONITOR WELLS AT OIL STORAGE FACILITY AND OLD LANDFILL



APPENDIX C

TRANSFORMERS ON ROCK ISLAND ARSENAL

Inspected David J He Haw

						PC	B	C	OLLIGN	DИИ	·
LOCATION	P.P.M.	EQUIPMENT.	MANUPACTURER	31ZE	SERIAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD.	RUP- TURED
SUB - B	2.2	TRANS	ESCO	2500	10129767	900	9-14-85 #681	х_			
SUB - B	4.6	TRANS	ESCO	2500	10129768	900	9-14-85 #682	Х			l
SUB - C	9.5	TRANS	ESCO ·	3 7 50	11129871	1200	7-7-85 #603	_х_			
SUB - D	6.4	TRANS	ESCO	3750	11129884	1200	8-18-85 #462	х			
SUB - E	6.4	TRANS	ESCO	2500	11129894	900	9-14-85 #685		X		<u> </u>
SUB - E	14	TRANS	ESCO	2500	11129893	900	9-14-85 #686		_ X		
SUB - G	120	TRANS	G.E.	750	E688996	245	9-14-85 #683	х			
SUB - G ·	23	TRANS	G.E.	750	E688995	245	9-14-85 #684		х		
SUB - G		TRANS	WEST	1500	PCT08570101	210	EAGTORY NON-PCB	x			
SUB - H	180	TRANS	WEST	2500	SBV-0365-0	327	9-14-85 #679	х			
SUB - H	170	. TRANS	WEST	2500	SBV-0366-0	327	9-14-85 #680	х			
BLDG - 9	78	TRANS	G.E.	50	7667034	. 35	9-15-85 #691	REMO	VED FR	OM SER 86	VICE
BLDG - 9	50	TRANS	G.E.	50	7667013	35	9-15-85 #692	REMO		OM SER	VICE
BLDG - 9	54	TRANS	G.E.	50	7668087	35	9-15-85 #693	REMO		OM SER	VICE
BLDG - 9	<1	TRANS	G.E.	3	1969815	Est 5	1-11-86 #767	х			
BLDG - 11	480	TRANS	G.E.	15	7301304	12.5	9-19-83		VED FR 12/18/	OM SER 86	VICE

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Inspected David J De Shin

						PC	B	c	NDITI	ои	.1
LOCATION	P.P.M	EQUIPMENT:	MANUPACTURER	SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. Leak	MOD. LEAK	RUP-
BLDG - 21	370	TRANS	G.E.	15	6959717	15	9-19-83	REM	OVED 1	ROM SE	RVICE
BLDG - 25		TRANS	NIAGARA	1500	38380	394	9-14-85 #687	Х			
BLDG - 25	-1	TRANS	G.E.	50	11666227Y68	35	10-3-85 #740	х			
BLDG - 25	44	TRANS	WEST	100	74E14176	54	9-15-85 #689	Х			
BLDG - 25 .	61	TRAŅS	WEST	100	74E14178	54	9-15-85 #688	, X			
BLDG - 25	59	TRANS	WEST	100	74E14167	54	9-15-85 #690	х			
BLDG - 31	1	TRANS	WEST	37.5	74A622086	. 32	10-3-85 #738	х			
BLDG - 31	20	TRANS	PENNSYL- VANIA	25	25268-5	20	9-19-83	Х			
BLDG - 31	51	TRANS	WEST	25	2202372	29	9-19-83	х			
BLDG - 31	41	TRANS	WEST	25	2202371	29	9-19-83	Х	-		
BLDG - 52	.5	TRANS	LINE MATERIAL	25	D3802207	13	9-15-85 #694	х			
BLDG - 52	.5	TRANS	LINE MATERIAL	25	D3916302	13	9-15-85 #695	Х			
BLDG - 52	.25	TRANS ·	LINE . MATERIAL	25	D3916307	13	9-15-85 #696	Х			•
BLDG - 52	80	TRANS	G.E.	200	6821407	105	9-15-85 #697	х			
BLDG - 52	110	TRANS	G.E.	200	6821408	105	9-15-85 #698	х			
BLDG - 52	62	TRANS	G.E.	200	6821409	105	9-15-85 #699	Х		•	

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						PC	7	C	ITION	ои	·
LOCATION	P.P.M	EQUIPMENT.	MANUPACTURE	R SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK		RUP-
BLDG - 56	34		G.E.	25	0 244432-571		6-19-85 #449	х			
BLDG - 56	<u> </u>	TRANS	R.T.E.	500	846006593	427	1-11-86 #765	Х			
BLDG - 64	30	TRANS	WEST	200	3772895	105	7-7-85 #621	X			
BLDG - 64	36	TRANS	WEST	200	3140051	105	7-7-85 #620A	X	• ;		
BLDG - 64	.5	TRANS	WEST	200 ⁻	3140054	105	7-7-85 #620	'x			
BLDG - 64	21	TRANS	STANDARD	750	90197	495	7-7-85 #616	X			
BLDG - 64	18	TRANS	G.E.	150	7147085	. 74	7-7-85 #617	х			
BLDG - 64 ·	100	TRANS	G.E.	150	6813812·	74	7-7-85 #618	X			
BLDG - 64	66	TRANS	G.E.	. 150	6813806	74	7-7-85 #619	Х	• .	<u> </u>	
BLDG - 64	.5	TRANS	WEST	50	83A430582	37	7-7-85 #614	х			
BLDG - 64	.5	TRAŅS	WEST	50	83A411980	37	7-7-85 #605	Х			
BLDG - 64	.5	TRANS	WEST	50	83A411986	37	7-7-85 #615	х	·.	-	
BLDG - 68		TRANS	SQUARE D	167	41050	Est 54	/ / ASKAREL	х			,
BLDG - 68		TRANS	SQUARE D	167	41048	Est 54	ASKAREL	х			
β LDG - 68		TRANS	SQUARE D	167	41049	Est	ASKAREL	х			
BLDG - 68		CAPACITOR Bank 12ea	G.E.	15 KVAR		1.5 ea	ASKAREL	х			

G

Inspected Dand I De Stew

						PC	В		ONDITI	ON	·
LOCATION	P.P.M	EQUIPMENT	MANUPACTURE	SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
BLDG - 68		CAPACITOR Bank 12ea	WEST	15 KVAR		1.5 ea		Х			
BLDG - 73	290	TRANS	WEST	1000	TAV869601	270	6-19-85 #456	X			
BLDG - 86	16	TRANS	G.E.	100	6813033	54	1-5-86 #759	X			
BLDG - 90	140	TRANS	MOLONEY	112.5	1933750	59	9-27-85 #729	Х			
BLDG - 90	<1	TRANS	WEST	225	74M871052-3	,	1-12-86 #771	′ x			
BLDG - 104		CAPACITOR Bank 12ea	G.E.	15 KVAR		1.5 ea	PYRANOL	Х			
BLDG - 106	110	TRANS	WEST	750	3419291	360	7-28-83 #204	Х			
BLDG - 106 ·	24	TRANS	KUHLMAN	200	940 621	175	7-28-83 #205	X			
BLDG - 106		TRANS	SQUARE D	750	820429-1	380	FACTORY LABELED NON-PCB	х	,		
BLDG - 106	<1	TRANS	WEST	25	83A463130	23	12-8-85 #751	Х			
BLDG - 106	(1	TRANS	WEST	25	83A463131	23	12-8-85 #752	х			; -
BLDG - 106	(1	TRANS	WEST	37.5	83A480565	39	12-8-85 #753	х			
BLDG - 108		TRANS	WEST	2000	TAT7468-0101	320	FACTORY NON-PCB	х			•
BLDG - 124	(1	TRANS	G.E.	15	E10541860Y	10	9-19-83	х			
CONFEDERATE CEMETARY	< 1	TRANS *	G.E.	10	M455741YCPA	10	1-4-86 #758	х			
BLDG - 128	410	TRANS	G.E.	25	6956092	18.5	9-19-83	REMO	VED F	OM SER	VICE

						PC	В	C	NDITI	ои	
LOCATION	P.P.M	EQUIPMENT.	MANUPACTURER	STZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK		RUP-
BLDG - 131	-1	TRANS	WEST	167	67AH6512	Est. 54	7-7-85 #466	Х			
BLDG - 131	-1	TRANS	WEST	75	68AB3929	Est. 40	7-7-85 #464	Х			
BLDG - 131	-1	TRANS	WEST	75 ·	68AA12609	Est. 40	7-7-85 #463	Х			
BLDG - 131	-1	TRANS	WEST	75	68AA12608	Est. 40	7-7-85 #465	X			
BLDG - 133		TRANS	G.E.	10	N808985-YJX	Est. 10	FACTORY LABELED NON-PCB	✓ X			
BLDG - 133		TRANS	G.E.	10	N808986-YJX	<u> </u>	FACTORY LABELED NON-PCB	X			
BLDG - 133		TRANS	G.E.	10	N714738-YEX		FACTORY LABELED NON-PCB	X			
BLDG - 139 ·	11	TRANS	MOLONEY	15	725311	Est 12	12-8-85 #7 41	X			
BLDG - 139	13	TRANS	MOLONEY	15	725312	Est 12	12-8-85 #742	X	<u>.</u>		
BLDG - 139	12	TRANS	MOLONEY	15	725310	Est 12	12-8-85 #743	X			
BLDG - 139	3	TRANS	WEST	37.5	70A618065	Est 25	12-8-85 #744	Х			
BLDG - 139	3	TRANS	WEST	37.5	70AJ5320	Est 25	12-8-85 #745	X			
BLDG - 139	3	TRANS	WEST	37.5	70AJ5321	Est 25	12-8-85 #746	X			,
BLDG - 144		TRANS	G.E.	37.5	N696638-YBX	Est . 25	FACTORY LABELED NON-PCB	X			
BLDG - 144		TRANS	G.E.	37.5	N802414-YIIX	Est 25	FACTORY NON-PCB	X			
BLDG - 144		TRANS	G.E.	37.5	N802415-YHX	Est 25	FACTORY NON-PCB	Х			

Inspected David J Rosan

						PC	B	C	NDITI	ои	
LOCATION	P.P.M.	EQUIPMENT.	<u>MANUFACTURER</u>	STZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
BLDG 144		TRANS	G.E.	75	6586489	Est 40	12-8-85 754	Х			
BLDG 157		TRANS	G.E.	25	D95503259Y	Est 18.5	12-8-85 747	Х			
BLDG 157		TRANS	G.E.	25	D95503159Y	Est 18.5	12-8-85 748	х			<u> </u>
BLDG 157		TRANS	G.E.	25	D48221860P	Est 18.5	12-8-85 ⊙749	x.			
BLDG 157	1_1_	TRANS	G.E.	25	7095906	18.5	4-10-84 15	х			
BLDG 159		TRANS	G.E.	50	6585160	40	12-8-85 750	REMO	VED FI	OM SER	VICE
BLDG 160		24 ea CAPACITOR	G.E.	15 KVAR		1.4 ea	PYRANOL	х			
BLDG 160 .		24 ea CAPACITOR	G.E.	15 KVAR		1.4 ea	PYRANOL	Х			
BLDG 160		24 ea CAPACITOR	G.E.	15 KVAR		1.4 ea	PYRANOL	Х			
BLDG 160		24 ea CAPACITOR	G.E.	15 KVAR		1.4 ea	PYRANOL	X			
BLDG 165	.5	TRANS	G.E.	10	17850Ý748A	7.5	6-19-85 457	х			
BLDG 168		TRANS	G.E.	15	9252466	15	9-9-85 677		VED FI 10/08	OM SER 86	VICE
BLDG 168		TRANS	G.E.	15	9252467	15	9-9-85 678		VED FI 10/08	OM SER 86	VICE
BLDG 168	94	TRANS	G.E.	15	9252468	15	9-15-85 700		10/08	ом ser 86	1
BLDG 168	 	TRANS	G.E.	15	6958176	15	9-9-85 674		10/08	·	. ·
BLDG 168		TRANS	G.E.	15	6958158	15	9-9-85 675	REMO	VED FI 10/08	OM SER /86	VICE

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						PC	8	C	риріт	ЮИ	
LOCATION	P.P.M	EQUIPMENT.	MANUPACTURER	SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
BLDG - 168	833	TRANS	G.E.	15	6958193	15	9-9-85 #676	REMO	VED F 10/08	ROM SER /86	VICE
BLDG - 168	< 1	TRANS	MOLONEY	15	710861	15	7-10-83 #602	х			
BLDG - 204	56	TRANS	G.E.	50	6808501	40	7-10-83 #607	Х			;
BLDG - 204	27	TRANS	G.E.	50	6808502	40	7-10-83 -#609	х			
BLDG - 204	48	TRANS	G.E.	50	6808500	40	7-10-83 #608	×			
BLDG - 206	۷1	TRANS	STÄNDARD	15	R-20459	Est - 15	7-10-83 #613	Х			
BLDG - 206	ر ا	TRANS	MOLONEY	5	48645	Est 7	7-10-83 #614	. Х			
BLDG - 208 ·		TRANS	WEST .	2000	TAT7794-0102	264	FACTORY LABELED NON-PCR	X			
BLDG - 208		TRANS	WEST	2000	TAT7794-0101	264	FACTORY LABELED NON-PCB	X			
BLDG - 208		TRANS	WEST	1000	TAT7796-0101	204	EAGEPER	Х			
BLDG - 208		TRANS	G.E.	2500	N650452	395	FACTORY LABELED NON-PCB	Х			
BLDG - 208		CAPACITOR Bank 12ea	G.E.	15 KVAR	·	1.5 ea	PYRANOL	REMO	VED F	ROM SER	VICE
BLDG - 208		CAPACITOR Bank 12ea	G.E.	15 KVAR		1.5 ea	INERTEEN	REM	VED F	ROM SEF	VICE
BLDG - 211		TRANS	WEST	750	85 ['] JA347250	· 445	HARELER EAGLORY	х			
BLDG - 211		TRANS	WEST	2000	TAT7794-0104	264	EAGEPEX NON-PCB	Х			
BLDG - 212		TRANS	WEST	2000	TAT7794-0103	264	FACTORY LABELED NON-PCB	Х			

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						PC	В	CC	ITION	ои	1
LOCATION	P.P.M	EQUIPMENT.	MANUPACTURER	SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
BLDG - 212		TRANS	WEST	1500	85JA339229	440	PACTORY LABELED NON-PCB	Х			
BLDG - 217	689	TRANS	WEST	225	68K3113	Est. 150	1-11-86 #761	Х			
BLDG - 220		TRANS	WEST	2000	TAT7795-010	275	FACTORY LABELED NON-PCB	Х			
BLDG - 220	80	TRANS	WEST	1000	3417803	495	8-1 8 -85 #606	Х			
BLDG - 220	86	TRANS	WEST	1000	3417802	495	8-18-85 #607	, X			
BLDG - 220	66	TRANS	WEST	1000	3412608	495	8-18-85 #469	X			
BLDG - 220	32	TRANS	WEST .	1000	3414791	495	8-18-85 #604	Х			
BLDG - 220 ·	100	TRANS	WEST	250	67K8920	Est. 100	8-19-85 #667	X			,
BLDG - 220	100	TRANS	WEST	250	67K8922	Est. 100	8-19-85 #668	Х			
BLDG - 220	120	TRANS	WEST	250	6565747	Est 100	8-19-85 #669	Х			:
BLDG - 220		. TRANS	G.E.	1.5	5327929	Est. 5		Х			
BLDG - 220		TRANS	WEST	300	7311546126	Est 80	8-18-85 #468	х			
BLDG - 220		TRANS.	WEST	225	73H547068	Est 75	8-18-85 #467	х			•
BLDG - 220		TRANS	WEST	300	7311546265	Est 80	8-19-85 #670	х			
BLDG - 220		TRANS	G.E.	3	1924067	3.25		Х			
BLDG - 222		TRANS	WEST	1000	85JA339227	470	FACTORY LABELED NON-PCR	Х.			

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Inspected David I Makin

				}		PC	В	C	ONDITION	N	
LOCATION	P.P.N	1 EQUIPMENT.	MANUPACTURE	SIZE	SERTAL OR MODEL NO.	GALLON3	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
BLDG - 222		TRANS	R.T.E.	112.5	816004035	175	8-18-85 #613	Х			
BLDG - 222	1.8	TRANS	MOLONEY	200	682930	153	8-18-85 #610A	X			
BLDG - 222	1.2	TRANS	MOLONEY	200	682932	153	8-18-85 #611	Х	·		
BLDG - 222	2	TRANS	MOLONEY	200	682931	153	8-18-85 #612	Х			<u>.</u>
BLDG - 222 \·	40	TRANS	ALLIS CHALMERS	200	1760656	110	8-7-85 #8	REMO	VED BY	CONT	ACTOR
BLDG - 222	48	TRANS	ALLIS CHALMERS	200	1760657	110	8-7-85 #C	REMO	VED BY	CONT	ACTOR
Bl.DG - 222	39	TRANS	ALLIS CHALMERS	200	1760645	_110	8-7-85 #A	REMO	OVED BY	CONT	RACTOR
BLDG - 225 ·		TRANS	WEST	112.5	85JK54204T	175	FACTORY LABELED NON-PCB	· x	-		
BLDG - 240	20	TRANS	G.E.	750_	G854393	_180	6-20-85 #664	Х	•		
BLDG - 240	550	TRANS	G.E.	750	G7730370	340	6-20-85 #665		Х		
BLDG - 240	23	TRANS	G.E.	500	G854394	150	6-20-85 #666	Х			
BLDG - 240		CAPACITOR Bank 3 ea	G.E.	50_KVAR	51F201AA	Est. 2.5 ea	PYRANOL	Х			
BLDG - 240		CAPACITOR Bank 3 ea	G.E.	50 KVAR	51F201AA	Est 2.5 ea	PYRANOL .	Х			
BLDG - 250 .	180	TRANS	G.E.	1500	7569933	459	8-18-85 #608	х			
BLDG - 250		CAPACITOR Bank 12 ea	West	15 KVAR	`	1.5 ea	INERTEEN	Х		·	
BLDG - 250		CAPACITOR Bank 12 ea	G.E.	15 KVAR		1.5 ea	PYRANOL	х			

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						PC	В		CONDITION				
LOCATION	P.P.M	EQUIPMENT.	MANUPACTURER	SIZE	SERIAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD.	RUP- r <u>ured</u>		
BLDG - 299		TRANS	WEST	750	5067307	430	INTEREEN	x					
LIFT STATION - 299	<1	TRANS	G.E.	75	L886336YML/	Est 54	7-10-83 #612	х					
LIFT STATION - 299	۷1	TRANS	G.E.	75	L886337YML/	Est 54	7-10-83 #611	х					
LIFT STATION - 299	<1	TRANS	G.E.	75	L885958HML/	Est 54	7-10-83 #610	х	·				
BLDG - 312	20	TRANS	G.E.	75	6581663	54	1-11-86 #764	x					
BLDG - 312	16	TRANS	G.E.	75	6581662	54	1-11-86 #763	х					
BLDG - 312	7	TRANS	POLE STAR	167	14633-1-1	Est 40	1-11-86 #762	Х					
BLDG - 321 ·	305	TRANS	G.E.	25	6954493·	18.5	1-11-86 #768	х			-		
BLDG - 334		TRANS	WEST	50	85A352851	37	FACTORY LABELED NON-PCB	х			}		
BLDG - 336	1	TRANS	WEST	37.5		Est 39	9-27-85 #725	х					
BLDG - 336	1	TRANS	WEST	37.5	80A460465	Est 39	9-2 7 -85 #726	х					
BLDG - 336	1	TRANS	WEST	37.5	80A460467	Est 39	9-27-85 #727	х					
BLDG - 337	.5	TRANS	G.E.	15	M4658721YCP/	Est 15	9-20-85 #712	Х					
BLDG - 337	.5	TRANS	G.E.	15	M465871YCPA	Est 15	9-20-85 #7 13	Х					
BLDG - 337	.5	TRANS	G.E.			Est 15	9-20-85 #714	X					
BI.DG - 337	.5	TRANS	G.E.	15	N391047YKTA	Est 15	9-20-85	REMOVE) TO P	DLE PII	E		

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LOCATION	P.P.M	EQUIPMENT.	MANUPACTURER	SIZE	SERTAL OR MODEL NO.	CALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP ('URE)	
BLDG - 337	.5	TRANS	G.E.	15	N391046YKTA	Est 15	9-20-85 #710	REMOV	D TO	OLE P	LE	
BLDG - 337	.5	TRANS	G.E.	15	N391048YKTA	Est 15	9-20-85 #711	REMOV	D TO	OLE P	ULE	
BLDG - 338		TRANS	G.E.	37.5	84A303053	39	FACTORY LABELED MON-PCB	х				
BLDG - 338		TRANS	G.E.	37.5	84A303054	39	FACTURY LABELED NON-PCB	х				
BLDG - 338 ·		TRANS	G.E.	37.5	84A303055	39	I FACTORY ABELED	, x				
BLDG - 341		TRANS	G.E.	15	N911705-YDY	Est 15	NON-PCB FACTORY LABELED NON-PCB	Х				
BLDG - 341		TRANS	G.E.	15	N911706-YDY	Est .	NON-PCB	Х				
BLDG - 341		TRANS	G.E.	15	N911707-YDY	Est 15	FACTORY NON-PCB	· х	,			
BLDG - 341	230	TRANS	G.E.	37.5	6960595	Est 39	1-28-85 #5028-03	X				7
BLDG - 342	1.0	TRANS	WEST	25	80A390521	Est 18	9-27-85 #719	Х				1
BLDG - 342	1.0	. TRANS	WEST	25	80A390522	Est 18	9-27-85 #720	Х				1
BLDG - 343	1.0	TRANS	WEST	25	80A390520	Est 18	9-27-85 #721	Х				1
BLDG - 343	1.0	TRANS	WEST	37.5	80A460466	Est 39	9-27-85 #722	х			•	
BLDG - 343	1.0	TRANS	WEST	37.5	80A460468	Est 39	9-27-85 #723	Х				1
BLDG - 343	1.0	TRANS	WEST	37.5	80A46Ò463	Est 39	9-27-05 #724	х				1
BLDG - 344	10	TRANS	WEST	10	60B11234	Est 10	9-20-85 #715		ED FRO 4-7-86	M SERV	ICE	

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						PC	:B	C	OTTIONS	и	
LOCATION	P.P.M	EQUIPMENT.	MANUPACTURE	SIZE	SERTAL OR MODEL NO.	CALLONS	TEST DONE		LEAK		RUP-
BLDG - 344	30	TRANS	WEST	10	60B10047	Est 10	9-20-85 #716		ED FRC 4-7-86		1 CE
BLDG - 344	15	TRANS	WEST	10	60813932	Est 10		REMOV	ED FRO 4-7-86	4	I CE
BLDG - 344	360	TRANS	G.E.	10	7098049	Est 10	9-20-85 #718		ED FRO 4-7-86	E .	ICE
COL. DAV. BLDG - 346	61	TRANS	G.E.	10	D112018	Est 10	6-19-85 #448	Х			
BLDG - 348 ·		TRANS	WEST	750	76C185129	440		′x			!.
BLDG - 350		TRANS	SQUARE D	300	40117	127	ASKAREL	Х			
BLDG - 350		TRANS	SQUARE D	500	40116	. 181	ASKAREL	х			
BLDG - 350		TRANS	ESCO	225	1840907	148	ASKAREL	х			İ
BLDG - 350		TRANS	ESCO	300	1840908	241	ASKAREL	Х			
BLDG - 350		TRANS	VAN TRAN	500	66B3487	150	ASKAREL	х			
BLDG - 350		TRANS	G.E.	300	L713714TAI1A	130		Х			
BLDG - 350		TRANS	G.E.	300	J928519T71A			X			
BLDG - 350		TRANS ·	G.E.	150	J928517T71A	Est N 80		х			
BLDG - 350		CAPACITOR Bank 12ea	G.E.	15 KVAR		1.43 eä	PYRANOL	х			
BLDG - 350		CAPACITOR Bank 12ea	G.E.	15 KVAR		1.43 ea	PYRANOL	Х			
BLDG - 390	31	TRANS	WEST	150	3100151	Est 80	9-17-85 #702		D FROM 4-20-8		CE

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						PC	В	CONDITION			
LOCATION	P.P.M.	EQUIPMENT	MANUPACTURER	SIZE	SERIAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
BLDG - 390		TRANS	WEST	167.5	86A121758	63		х			
BLDG - 390		TRANS	WEST_	167.5	86A121756	63		х			
BLDG - 390		TRANS	WEST	167.5	86A101755	63		X			
BLDG - 390		TRANS	WEST	167.5	86A113600	62	£.*	х			! 1
BLDG - 390 ·		TRANS	WEST	167.5	86A113599	62		'x			
BLDG - 390		TRANS .	WEST	167.5	86A113598	62		х			i
BLDG - 337		TRANS	G.E.	25	P113401-YTA	13.3	8-8-86 #777	х			
BLDG - 337		TRANS	G.E.	25	P118399-YTA	13.3	8-8-86 #778	X			
BLDG - 337		TRANS	G.E.	25	P118400-YTA	13.3	8-8-86 #776	X			
BLDG - 9		TRANS	G.E.	50	P166084-YWA	19.6	11-18-86 #780	Х			
BLDG - 9		TRANS	G.E.	50	P166083-YWA	19.6	11-17-86 #779	X			
BLDG - 9		TRANS	G.E.	50	P166085-YWA	19.6	11-18-86 #781	Х			
GOV. BRIDGE BLDG 320		TRANS	G. E	75	P166387-YWA	33.0	11-21-86 #790	Х			
BLDC 159		TRANS	G.E.	50	P114111-YS/	31.0	11/20/86 #783	х			
BLDG 21		TRANS	G.E.	15	P099741-YSA	10.8	11/20/86 #785	х	· .		
BLDG 128		TRANS	G.E.	25	P156952-YWA	18.1	11-21-86 #792	х	. :		
BLDC 11		TRANS	G.E.	15	P099743-YSA	10.8	11-20-86 \$786	X			J

	T		·			PC	В	C	OTITON	M	
LOCATION	P.P.M.	EQUIPMENT.	MANUPACTURER	SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE		I.EAK	MOD. LEAK	RUP- C <u>URED</u>
BLDG - 390	34	TRANS	WEST	150	3100149	Est 80	9-17-85 #703		ED FRO 4-20-8		I CE
BLDG - 390	41	TRANS	WEST	150	3100153	Est 80	9-17-85 #704		ED FRO 1-20-8		ICE
BLDG - 390	95	TRANS	WEST	150	3100154	Est 80	9-17-85 #705		ED FRO 4-20-8		ICE
BLDG - 390	81	TRANS	WEST	150	3100152	Est 80	9-17-85 #706		ED FRO 4-20-8		ICE
BLDG - 390 ·	39	TRANS	WEST	150	3100150	Est 80	9-17-85 #707		ED FRO 4-20-8		ICE
GOVERNMENT BRIDGE	83	TRANS	G.E.	37.5	6294725	32	6-30-85 #461	Х			
GOVERNMENT BRIDGE	140	TRANS	G.E.	37.5	6291983	32	6-30-85 #600	Х	·		
GOVERNMENT BRIDGE		TRANS	G.E.	37.5	6294724	32	6-30-85 #460A	Х			
GOVERNMENT BRIDGE	100	TRANS	G.E.	75	6586572	54 -	6-30-85 #600A		VED FR		ICE
PARRON CIRCLE	101	TRANS	G.E.	50	K292479Y71A	Est 40	1-4-86 #757	Х			
MURPHY CIRCLE	46	TRANS	G.E.	75	K292585Y71A	Est 54	1-4-86 #756	Х			
MACARTHER DRIVE		TRANS	G.E.	75	N635284YKW	Est 54	EAGTORY NON-PCB	Х			
CHAMBERLAIN DRIVE	5	TRANS	G.E.	50	K292480Y71A	Est \ 37	1-4-86 #755	х			,
So. Street NEW CHILLER BLDG		TRANS	SQUARE D	1000	8105581	289		х			
V Area PUMP HOUSE	.5	TRANS	G.E.	50	L781222Y74A	Est \ 37	6-19-85 #453	Х			
V Area PUMP HOUSE	5	TRANS	G.E.	. 50	M358391YKNA	Est 37	6-19-85 #454	Х			

Inspected Danel J De Sky

						PC	В	C	ITION	ои	
LOCATION	P.P.M	EQUIPMENT	MANUPACTURER	SIZE	SERTAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK	SM. LEAK	MOD. LEAK	RUP-
V Area PUMP HOUSE	5	TRANS	G.E.	50	M360661YKNA	Est	6-19-85 #455	Х			
CLOCK TOWER	1	TRANS	G.E.	10 ·	J127483Y69	Est 10	9-27-85 #728	Х			
SALVAGE YARD	9.1	TRANS	WEST	75	3770409	Est 54	6-19-85 #450A	Х			·
SALVAGE YARD	8.1	TRANS	WEST	75	3770399	Est 54	6-19-85 #451	Х			
SALVAGE YARD:	8.6	TRANS	WEST	75	3770401	Est 54	6-19-85 #452	, X			
MOLINE GUARD SHACK	1	TRANS	DOWZER	10	79D1754401	Est 10	10-3-85 #739	х			
MOLINE GUARD SHACK	<1	TRANS	DOWZER	25	7901754301	Est 18	1-12-86 #770	х			
QUARTERS 1	< 1	TRANS	G.E.	50	833601VDLA	Est 37	1-8-86 #760	X			
QUARTERS 2	1	TRANS	WEST	25	74AJ11665	Est 18	10-3-85 #736	Х	 		
QUARTERS 3 and 4	45	TRANS	WEST	50	74K9379	Est 37	10-2-85 #730	Х			
QUARTERS 6	42	. TRANS	G.E.	15	7141646	12.5	10-2-85 #731	Х	· .		
QUARTERS 7	1	TRANS	WEST	25	74AJ11667	Est 18	10-2-85 #732	X .			
QUARTERS 11 & 12	230	TRANS	G.E.	37.5	6960581	33	10-3-85 #735		X		١
QUARTERS 23 & 24	230	TRANS	G.E.	37.5	6960575	33	10-3-85 #734	X			
QUARTERS 24	1	TRANS	G.E.	25	M535028YFPA	Est 18	10-3-85 #733	Х			
PUMP NEW QRTS	< 1	TRANS	G.E.	10	K478319K72A	10	9-18-83	Х.			

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						PC	P	C	PITION	N		
LOCATION	P.P.M.	EQUIPMENT.	<u>MANUPACTURER</u>	SIZE	SERIAL OR MODEL NO.	GALLONS	TEST DONE	NO. LEAK		MOD. LEAK	RUP-	
PUMP NEW QRTS	<u>ا</u> را	TRANS	G.E.	10	K478318K72A	10	9-18-83	Х				
ROCK ISLAND VIA DUCT		TRANS	WEST	25	82 A- 062000	Est 18	9-19-85 #708	Х				
NORTH GILLESPIE		TRANS	G.E.	10	N714736-YCX	Est 10	#708 FACTORY LABELED NON-PCB	X				
BLDG - 168		TRANS	G.E.	10	P048067-YNA	9.1	8-8-86 #7,74	Х				
BLDG - 168		TRANS	G.E.	15 :	P099744-YSA	10.8	8-8-86 #775	¥.	·			
BLDC - 168		TRANS	G.E.	10	P048068-YNA	9.1	8-8-86 #772	Х	,			
BLDG - 168		TRANS	G.E.	10	P048066-YNA	9.1	8-8-86 #773	X				
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APPENDIX D

IEPA UNDERGROUND STORAGE TANK NOTIFICATION

Notification for Underground Storage Tanks

TANKS:

RETURN COMPLETED FORM TO

UST Coordinator, Division of Fire Prevention Office of State Fire Marshal

> P.C. Box 3803 Springfield, IL 62708-3803

STATE USE ONLY

GENERAL INFORMATION

used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested red by Section 9002 of the Resource Conservation and Recovery Act, (RCRA),

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or, in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

(a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and
(ii) in the case of any underground storage tank in use before November 8, 1984.

but no longer in use on that date, any person who owned such tank immediately before the discontinuation of its use.

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated sub-stances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. gasoline. used oil, or diesel fuel, and 2, industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

 farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes:

2. tanks used for storing heating oil for consumptive use on the premises where stored: 3. septic tanks:

4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws:

5. surface impoundments, pits, ponds, or lagoons:

6. storm water or waste water collection systems;

I.D. Number

Date Received

7. flow-through process tanks:

8. liquid traps or associated gathering lines directly related to oil or gas production and

gathering operations;

5. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response. Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subitite C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per quare inch absolute).

Where To Notify? Completed notification forms should be sent to the address given at the top of this page

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8. 1986, must notify within 30 days of bringing the tanks into use.

naities: Any owner who knowingly fails to notify or submits faise information shall be subject to a civil penalty not to exceed \$19,000 for each tank for which notification is not given or for which false information is submitted.

I. OWNERSHIP OF TANK(S)	II. LOCATION OF TANK(S)
wner Name (Corporation, Individual, Public Agency, or Other Entity) U.S. Government Ireat Address Rock 1sland Arsenal	(If same as Section 1, mark box here) Facility Name or Company Site Identifier, as applicable
County Rock Island	Street Address or State Road, as applicable
ity State ZIP Code Rock Island, Illinois 61299-500	County
rea Code Phone Number 309 782-1491	City (riearest) State ZIP Code
ype of Owner (Mark all that apply ☑) Current ☐ State or Local Gov't ☐ Corpo Former ☐ Federal Gov't ☐ Owner uncer (GSA facility I.D. no. ☐ Owner uncer	number of tanks at this 27 are located on land within an Indian reservation or
III, CONTAC	RSON AT TANK LOCATION
	tte Area Code Phone Number 309 782-1491
IV. 1	E OF NOTIFICATION.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative John M. Gamino, Colonel, Ordnance Corps

Signature

MEREN

Date Signed 8 MAY 1986

CONTINUE ON REVERSE SIDE

wer Name (from Section I) U.S. Government to Description of Undergroup				cation.)	07 P
ank identification No. (e.g., ABC-123), or	Tank No.				
Status of Tank: (Mark all that apply 21) Permanently Out of Use Brought into Use after 5/8/86		2	3	4	5
Estimated Age (Years) Estimated Total Capacity (Gallons)	20,000	15,000	10,000	10,000	1,000
Material of Construction Steel (Mark one 配). Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify					800
Internal Protection Cathodic Protection (Mark all that apply m) Cathodic Protection Interior Lining (e.g., epoxy resins) None Unknown Other, Please Specify					
External Protection (Merk all that apply ©) Fiberglass Reinforced Plastic Coated None Unknown Other, Please Specify					00088
Piping Bare Steel (Attack all that apply 12) Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown Other, Please Specify					08080
Substance Currently or Last Stored in Greatest Quantity by Volume b. Petroleum Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify c. Hazardous Substance				DCS*	
Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No. Mark box 2 if tank stores a mixture of substances d. Unknown					
Additional information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box 2 if tank was filled with inert material (e.g., sand, concrete)					

VI DESCRIPTION OF UNDERG	<u>-</u>	NKS (Camplele for	<u> </u>		
Pank identification No. (e.g., ABC-123), or Arbitrarily Assigned Sequential Number (e.g., 1,2,3)	Tank No.	Tank No.	Tank No. 8	Tank No.	Tank No.
Status of Tank (Affark all thet apply (II) Permanently Out of U Brought into Use after 5/8/	se				8000
Estimated Age (Years)	3	3	69	69	69
Estimated Total Capacity (Gallons) Material of Construction (Mark one 图) Concre Fiberglass Reinforced Plass Unknow Other, Please Speci	ete tic wn	12,000	15,000	15,000	15,000
Internal Protection (Mark all that apply to) Interior Lining (e.g., epoxy resin Not Unknow	wn				
External Protection (Mark all that apply ©) Fiberglass Reinforced Plastic Coate Not Unknow	on X ic) X ed C				
Piping Bare Ste (Mark all that apply g) Galvanized Ste Fiberglass Reinforced Plast Cathodically Protecte Unknow	eel		None	None	None
Substance Currently or Last Stored in Greatest Quantity by Volume: (Mark all that apply (1)) Dies Keroser Gasoline (including alcohol bland Used C Other, Please Speci	sel X ne				
Please Indicate Name of Principal CERCLA Substant OF Chemical Abstract Service (CAS) N Mark box 2 if tank stores a mixture of substance d. Unknow	o				
Additional information (for tanks permanently taken out of service) a. Estimated date last used (mo/y b. Estimated quantity of substance remaining (ga c. Mark box 2 if tank was filled with inert material (e.g., sand, concret	ial		/	/	/

69 15,000	15 7,000	Tank No.	Tank No.	40 10,000
			10,000	
				00030 0800 0008
	Burner 0il		DCS*	
		/	/	7,81
		Burner 0il		Burner Oil DCS*

•				Page No. 4	. of Peg
VI. DESCRIPTION OF UNDERGROUP	ND STORAGE TAN	KS (Camplete lar	each tank at this lo	cation.)	
ink identification No. (e.g., ABC-123), or bitrarily Assigned Sequential Number (e.g., 1,2,3)	Tank No.	Tank No	Tank No.	Tank No.	Tank No 20
Status of Tank (Mark all that apply 11) Temporarily Out of Use Permanently Out of Use Brought into Use after 5/8/86					
Estimated Age (Years)	4	40	40	40	40 500
Estimated Total Capacity (Gallons) Material of Construction Steel (Mark one E) Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify	1000	1065	1000	500	
Internal Protection Cathodic Protection Interior Lining (e.g., epoxy resins) None Unknown Other, Please Specify					
External Protection (Mark all that apply 2) Fiberglass Reinforced Plastic Coated None Unknown Other, Please Specify					
Piping. (Mark all that apply g) Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown Other, Please Specify					
Substance Currently or Last Stored a. Empty. In Greatest Quantity by Volume b. Petroleum Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify			8 0000		
C. Hazardous Substance Cancel Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No. Mark box 2 if tank stores a mixture of substances					
Additional information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box 2 if tank was filled with inert material (e.g., sand, concrete)	3/ 85	5/ 75 0	5 / 75	5,75 0	5,75

	Location (from Section ii) Rock Island Arsenal page No. 5 of 6° Pa						
VI. DESCRIPTION OF UNDERGROU	NO STORAGE TANKS (Complete for each tank at this location.)						
ink Identification No. (e.g., ABC-123), or retirerity Assigned Sequential Number (e.g., 1,2,3)	Tank No.	Tank No.	Tank No.	Tank No. 24	Tank No. 25		
Status of Tank (Affair all that apply 12) Temporarily Out of Use Permanently Out of Use Brought into Use after 5/8/86							
Estimated Age (Years)	265	40 420	40 465	1000	1000		
Estimated Total Capacity (Gallons) Material of Construction Steel (Mark one 2) Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify	209						
Internal Protection (Mark all thet apply tp.) Interior Lining (e.g., epoxy resins) None Unknown Other, Please Specify							
External Protection (Mark all that apply 10) Fiberglass Reinforced Plastic Coated None Unknown Other, Please Specify							
Piping Bare Steel (Mark all that apply 11) Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown Other, Please Specify				Wrapped _	Wrapped		
Substance Currently or Last Stored in Greatest Quantity by Volume b. Petroleum Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify							
c. Hazardous Substance							
Please Indicate Name of Principal CERCLA Substance OR Chemical Abstract Service (CAS) No. Mark box 13 if tank stores a mixture of substances d. Unknown							
Additional information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) a. Estimated quantity of substance remaining (gal.) c. Mark box 2 if tank was filled with inert material (e.g., sand, concrete)	9/75 0	9/70	9/70 0	9/70 0	9,70 0		

		ocation (from Section I!) Rock Island Arsenal Page No. 6 of 6				
VI. DESCRIPTION OF UNDERGROU	NO STORAGE TANKS (Complete loranch tank at this location.)					
ank identification No. (e.g., ABC-123), or urbitrarily Assigned Sequential Number (e.g., 1,2,3)	Tank No.	Tank No.	Tank No.	Tank No.	Tank No	
. Status of Tenk (Mark all that apply E) Temporarily Out of Use Permanently Out of Use Brought into Use after 5/8/86						
Estimated Age (Years)	30 500	500				
Estimated Total Capacity (Gallons) Material of Construction Steel (Mark one (E)) Concrete Fiberglass Reinforced Plastic Unknown Other, Please Specify						
Internal Protection (Mark all thet apply (2)) Interior Lining (e.g., epoxy resins) None Unknown Other, Please Specify					0000	
External Protection (Mark all that apply 11) Fiberglass Reinforced Plastic Coated None Unknown Other, Please Specify						
Plping, (Mark all that apply 12) Galvanized Steel Fiberglass Reinforced Plastic Cathodically Protected Unknown Other, Please Specify						
Substance Currently or Last Stored in Greatest Quantity by Volume b. Petroleum (Merk all that apply 11) Diesel Kerosene Gasoline (including alcohol blends) Used Oil Other, Please Specify						
c. Hazardous Substance Please Indicate Name of Principal CERCLA Substance						
Chemical Abstract Service (CAS) No. - Mark box 2 if tank stores a mixture of substances d. Unknown						
Additional Information (for tanks permanently taken out of service) a. Estimated date last used (mo/yr) b. Estimated quantity of substance remaining (gal.) c. Mark box 2 if tank was filled with inert material	7 , 75		/	/	/	
(e.g., sand, concrete)						